بسم الله الرحمن الرحيم

Fibrous Overgrowths of The Oral Cavity

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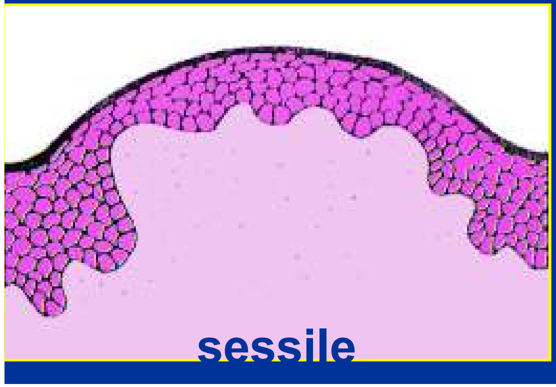
Reactive hyperplasias

- comprise a group of *fibrous connective tissue lesions* that occur in the oral cavity as a result of injury
- They represent a chronic process in which *overexuberrant repair* {granulation tissue} follows injury
- They are derived from mesenchymal cells
- These lesions presents as submucosal masses

- Cells respond to external stimuli by *hyperplasia or hypertrophy*.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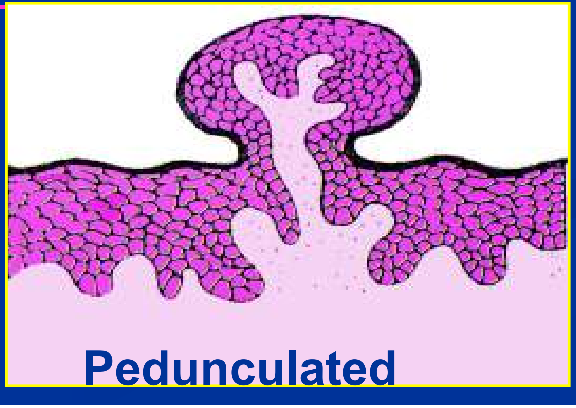
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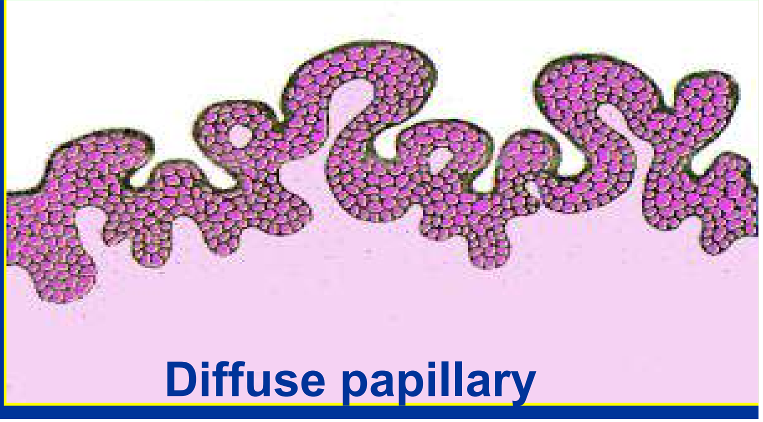

Diffuse papillary

- **Their colour**
  - could be **lighter than** the surrounding tissue (due to **increase in collagen**)
  - or red (due to abundance of **vascularization).**
- They are **painless** as nerve tissue does ***not*** proliferate with reactive hyperplastic tissue.

- ***The reason for this exuberrant repair is unknown***

Fibrous Overgrowths of the Oral Cavity

- These lesions are **pathologically related** , but ***different names*** have been given because of variation in the **anatomic site** , **clinical appearance** or **microscopic picture**

Fibrous Overgrowths of the Oral Cavity

Reactive Lesions that represent as predominant increase in collagen

1-Irritation Fibroma {Focal Fibrous Hyperplasia} {fibroepithelial polyp}

2-Peripheral Fibroma {fibrous epulis}

3-Denture-induced lesions (hyperplasias):

- Denture induced hyperplasia {Epulis Fissuratum }
- Leaf-like denture fibroma{Fibro-epithelial polyp}
- Papillary hyperplasia of the palate

4-Generalized Gingival Hyperplasia:

Fibrous Overgrowths of the Oral Cavity

Reactive Lesions that represent as prominent red masses because of an abundance of well- vascularized granulation tissue

1-Pyogenic granuloma

2-Peripheral giant cell granuloma {giant cell epulis}

1-Focal Fibrous Hyperplasia {fibroepithelial polyp- (Irritation fibroma)}

Clinical features

- Fibrous connective tissue ***repair*** results in a clinically evident **submucosal mass**.
- { e.i. It is **a reactive lesion** caused by chronic **trauma** to oral mucous membrane }

1. Areas frequently subjected to trauma eg. **buccal** mucosa, lateral border of the **tongue** and the **lower lip.**
2. It is a **painles**s broad based swelling with a **lighter colour** than the surrounding tissue due to its ***lack*** of vascular **channels**

- **Have a limited growth potential do not exceed 1to2 cm**

Histopathological features:

1. Collagen overproduction is the *basic process* in this lesion {dense thick interlacing collagen fibers }.

- Mature fibroblasts are widely scattered in a dense collagen matrix

2. Variable inflammatory cell infiltrate between the collagen bundles or perivascular

3. The surface of a fibroepithelial polyp is covered by stratified squamous epithelium which may *vary in thickness* & show areas *hyperkeratosis* in response to frictional irritation{ chronic low grade friction

- Surgical excision is the line of treatment. Recurrence may happen due to continued trauma to involved areas.

2-Peripheral fibroma
(fibrous epulis)

Clinical features

- It arises on gingiva anterior to the permanent molars.
- Young adults are commonly affected
- with a predilection for females than males.

Histopathological features

❖ The lesion shows

1. **Varying** amounts of richly **cellular fibroblastic** granulation tissue & interlacing bundles of **mature collagen fibers**
2. **Variable** inflammatory cell infiltration
2. **Several subtypes**

- Peripheral **odontogenic** fibroma
- Peripheral **ossifying** fibroma {presence of amorphous deposits of calcification & or trabeculae of metaplastic bone}

- ✓ **Ossification** occur because young connective tissue cells differentiate into osteoblasts
- ✓ Or **mucoid degeneration** & dystrophic calcification

- Treatment
- Local excision
  Removal ***of calculus*** or
  any foreign material

3-Denture-induced fibrous lesions:

- These are reactive fibrous hyperplasias of oral mucosa which are related to chronic trauma produced by *ill-fitting dentures*. The denture is the causative agent.

1. **Denture induced hyperplasia {Epulis Fissuratum }**
2. **Leaf-like denture fibroma {Fibro-epithelial polyp}**
3. **Papillary hyperplasia of the palate**

1.Fibro-epithelial polyp (leaf-like denture fibroma)

- It is a common lesion that occurs on the hard palate beneath the denture. Minor trauma is thought to be an important initiating factor
- *Clinical features*

1. This characteristic lesion presents as a flattened pink mass that is attached to the palate by a narrow stalk resembles a leaf
2. It is light in colour

2. Denture-induced fibrous hyperplasia (Epulis Fissuratum)

1. Single or multiple painless folds present In the alveolar vestibule
2. The over-extended flange of the denture fits conveniently into the fissure between the folds
3. With lower, more than upper dentures,
4. more often in females than males
5. Ulceration at the base of the fissure

3 -Papillary hyperplasia of the palate

- Develops due to Minor trauma , related to rocking and rotation of ill-fitting dentures
- Poor denture hygiene
- Patient may give a history of wearing the denture 24 hours a day
- Chronic atrophic candidosis may be a contributing factor

Clinical features

- *Numerous,* small, tightly packed papillary projections over part or all of the denture-bearing area, thus giving the mucosa a pebbled appearance.

1.Histopathological features of fibroepithelial polyp

1. The lesion has a *narrow core* of dense relatively avascular and acellular fibrous connective tissue.
2. Covered by stratified squamous epithelium which may be hyperplastic.
3. Thick interlacing bundles of collagen fibres are the dominant feature.

2.Histopathological features of epulis fissuratum

1. **Multiple folds & grooves occur where the denture impinges on the tissue**
2. **Focal areas of *ulceration* are seen at the base of the grooves between the folds**
3. **The overlying epithelium demonstrate irregular hyperplasia of the rete ridges**
4. **Variable chronic inflammatory cell infiltration**

3.Histopathological features of papillary hyperplasia of the palate

1. The lesion shows *numerous* papillary growths, covered by hyperplastic stratified squamous epithelium.
2. Hyperplastic, chronic-inflamed fibrous tissue forms the core of the lesion.

Treatment

- Surgical removal
- New denture or relining of the old is required to prevent reccurence

Fibrous Overgrowths of the Oral Cavity

Reactive Lesions that represent as red masses because it is composed predominantly of hyperplastic granulation tissue in which *capillaries are very prominant*

1-Pyogenic granuloma

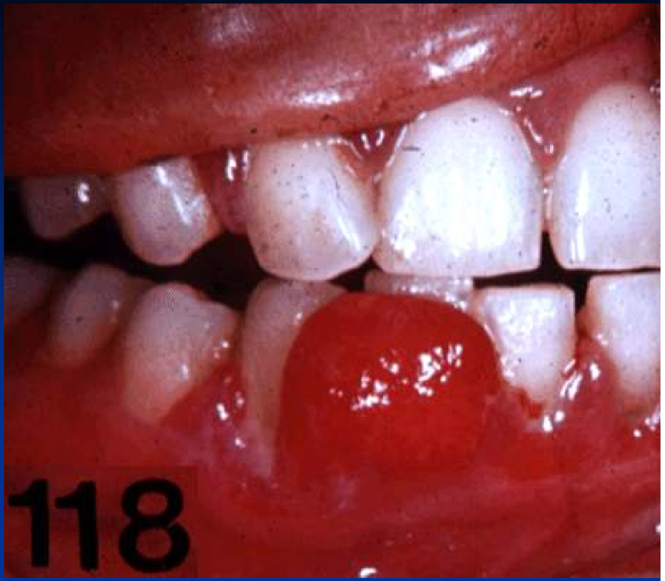
2-Peripheral giant cell granuloma {giant cell epulis}

1.Pyogenic granuloma

- Represents an exuberant connective tissue proliferation to a known stimulus or injury
- **Hormonal changes of puberty or pregnancy may modify the gingival reparative response to injury producing what was once called pregnancy tumor or multiple gingival lesions {*pregnancy gingivitis*}**

Clinical features

Site:

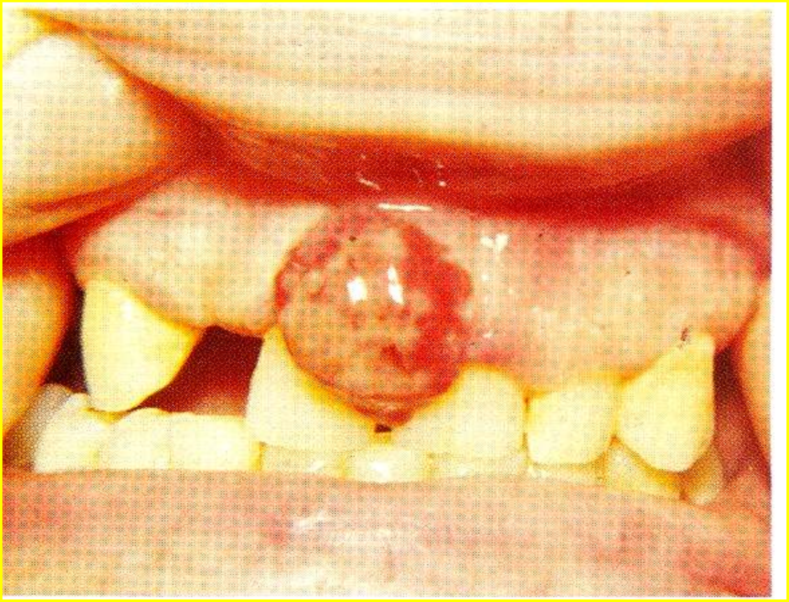


- commonly on the gingiva where they are caused by calculus or foreign material within the gingigal crevices
- or the lip, tongue & buccal mucosa { in areas of frequent trauma }

- Smooth lobulated mass that may be sessile or pedunculated.
- Firy Red in colour and their surface is usually ulcerated.
- If subjected to trauma, they tend to bleed easily because of their extreme vascularity.

The pregnancy tumour

- Develops during the first trimester, and their incidence increases during the months of pregnancy, due to the increasing levels of estrogen and progesterone hormones as the pregnancy progresses.



***Histopathological** features*

- **Extreme vascular proliferation** which may take the form of **solid sheets** of endothelial cells with little evidence of canalization
- Or numerous small & large **endothelim-lined channels** that are
- Engorged with **red blood cells**
- Both pattern s may ***coexist*** in different part of the same lesion
- ***Inflammatory*** cell infiltration is variable
- The surface is usually **ulcerated** & replaced by a thick **fibro-purulent** membrane {e.i. neutrophils are present in the superficial zone }

Treatment

- Conservative surgical excision to periostuem.
- If lesion recurs ……………………re-excision.
- Scaling, removal of any source of irritation in case of gingival lesions.

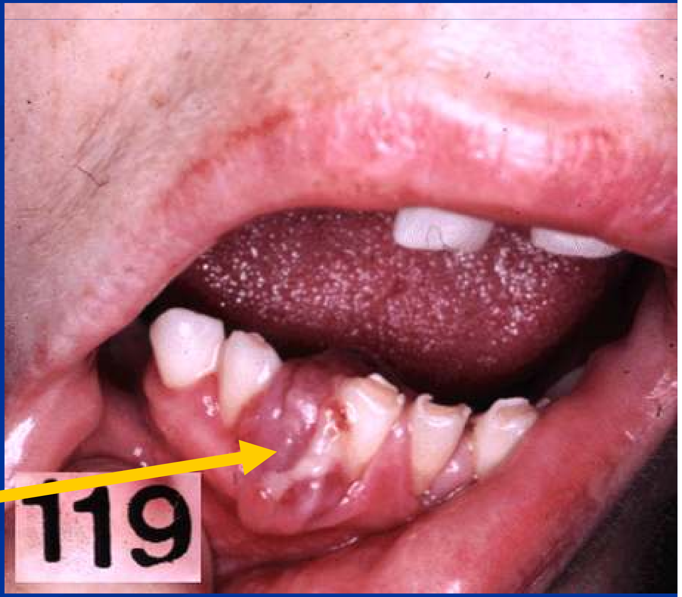
Peripheral giant cell granuloma

- It is an unusual hyperplastic connective tissue response to injury {**reactive hyperplasia** caused by local irritation or trauma}
- The feature that sets this lesion apart from the others is the **appearance of multinucleated giant cells**
- The giant cells are non functional in the usual sense of **phagocytosis** & **bone resorption**

Peripheral giant cell granuloma

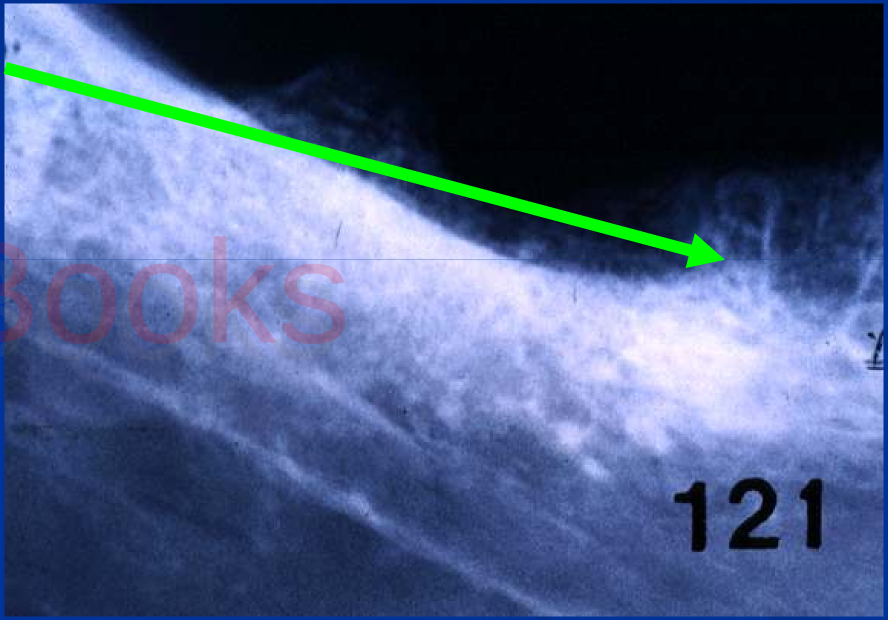
Clinical features

1. Are **exclusively** on the **gingiva** between the 1st molars & incisors
2. More **bluish-purple in color** compared to the **fiery red** color of a typical pyogenic granuloma
3. Broad based masses
4. Sometimes grows in an **hour glass** manner with the waist of the lesion between 2 teeth
5. 2ry **ulceration** caused by trauma may give the lesion a focal yellow zone as a result of the formation of a fibrin clot



Peripheral giant cell granuloma

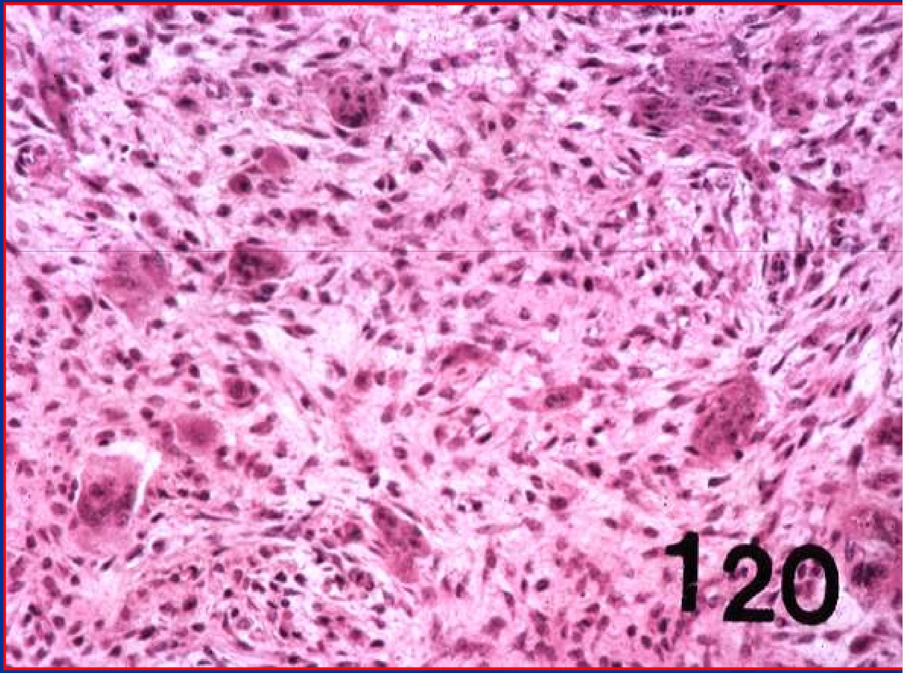
6. Although the periphery giant cell granuloma develops within soft tissue " **cupping"** **resorption** of the underlying alveolar bone sometimes is seen in x rays
7. It may be difficult to determine whether the mass arose as **periphera**l lesion or as a **central** giant granuloma that eroded through the cortical plate into the gingiva



Peripheral giant cell granuloma

Histopathology

1. **Fibroblasts** are the basic element
2. **Abundant multinucleated giant cells** Scattered throughout the fibroblasts
3. Abundant hemorrhage is characteristically found throughout the mass which often results in deposits of **hemosidrin pigment**
4. Acute & chronic inflammatory cells are commonly present



Peripheral giant cell granuloma

- The overlying mucosal surface is ulcerated in about 50% of cases
- A zone of dense fibrous **connective tissue** usually separates the giant cell proliferation from mucosal surface

Peripheral giant cell granuloma

- Treatment
- Local surgical excision down to the underlying bone
- Approximately 10% of lesions recur

Thank You